

## **FINDING OF NO SIGNIFICANT IMPACT**

### **Evaluation of Livestock Grazing and Habitat Assessment of Bog Turtle (*Clemmys muhlenbergii*) Areas in the Plateau and Highlands District along the Blue Ridge Parkway**

**Blue Ridge Parkway  
USDI, National Park Service**

#### **Introduction**

The National Park Service, Blue Ridge Parkway has prepared an Environmental Assessment that evaluates the environmental effects, short and long term, of evaluating livestock grazing and habitat of bog turtle areas in the Plateau and Highlands Districts. The primary objective of bog turtle management along the Blue Ridge Parkway is to protect and maintain bog turtle populations and habitat along the Parkway in concert with cooperating agencies and adjacent neighbors. The Parkway recognizes that in many cases wetlands comprising bog turtle habitat do not occur solely within the boundaries of the Parkway. Many of these areas occur jointly on BLRI lands and privately owned lands. Thus a cooperative approach with adjacent landowners and agencies is necessary to manage/protect these wetlands.

The overall goal of the proposed grazing study is to evaluate the impacts of cattle grazing on the bog turtle and its wetland habitats along the Blue Ridge Parkway. Specifically this study will evaluate which cattle densities and rotations best to maintain bog turtle habitat and how vegetation and habitat features (e.g. mud and water depth) within these wetlands change when cattle are excluded from an area.

This study appears to meet the goals and objectives of the U.S. Fish and Wildlife Service's Bog Turtle (*Clemmys muhlenbergii*) -- Northern Population Recovery Plan.

While meetings were held with concerned agencies and individual researchers, no public meetings were held.

The purpose of this document is to record the selection of the environmentally preferable alternative and to declare a Finding of No Significant Impact (FONSI) pursuant to the Council on Environmental Quality's regulations for implementing the National Environmental Policy Act.

### **Alternatives Considered**

1. No Action Alternative – Under this alternative, the proposed study to evaluate the impacts of cattle grazing on the bog turtle and its habitat would not be carried out. Cattle grazing, which already occurs in approximately 15 bog turtle areas along the Parkway, would likely continue at its current level.
2. Alternative 1 – Manipulate Grazing Intensities- This alternative would involve randomly allocating different grazing intensities in 10 different areas containing known or suspected bog turtle populations in order to do a controlled comparison of different grazing intensities. Small temporary exclosures would be constructed in each of the study areas along the Parkway to measure changes in habitat quality at different levels of grazing. At two study areas, bog turtles would be live captured and fitted with radio transmitters in order to assess whether turtles use grazed areas differently from ungrazed areas.
3. Alternative 2 – Comparison of Grazed and Ungrazed Within Each Study Area - Under this alternative, existing livestock pastures containing known or suspected bog turtle populations would be assessed to determine their current level of grazing. Small temporary exclosures would be constructed in 10 areas along the Parkway. At two areas bog turtles would be live captured and fitted with radio transmitters in order to assess whether turtles use grazed areas differently from ungrazed areas. Existing grazing intensities within the study areas would not be increased above current levels.
4. Alternative 3 – The Environmentally Preferable Alternative – Combination of Manipulating Grazing Intensities and Comparison of Grazed and Ungrazed Areas - The primary objective of this alternative is to assess the impacts of livestock grazing on bog turtle populations at 10 areas along the Blue Ridge Parkway Ridge Parkway; to monitor bog turtle responses (using radio telemetry) to various levels of grazing; to collect baseline habitat measurements at known Parkway bog turtle areas; and to provide recommendations for management of bog turtle habitat along the Parkway.

## **Alternative Selection**

Based on the analysis documented in the Environmental Assessment and regulatory agency input, it is our decision to adopt the Environmentally Preferable Alternative — Combination of Manipulating Grazing Intensities and Comparison of Grazed and Ungrazed Areas. The Blue Ridge Parkway prefers this alternative because it would give researchers flexibility in designing and carrying out the project while minimizing impacts to the bog turtle's habitat. This alternative would include:

- Study areas would be assessed to determine the current grazing intensity and current habitat conditions for the bog turtle. Grazing intensity in two of the areas may be increased from 1 animal unit per 0.6 ha (1.5 acres) to a maximum of 2 animal units per 0.4 ha. (1 acre) in order to assess bog turtle response to higher grazing intensities. Grazing intensities in the remaining 8 study areas will be maintained at their current levels. Other considerations for selection of final study areas will be size of the wetland, bog turtle population size, and feasibility of working with the agricultural lessee.
- Cattle exclosures would be erected in each of the study areas. Two exclosure sizes would be used and exclosures would be constructed out of locust or metal fence posts and 12-gauge barbwire and would be constructed at a height sufficient to exclude cattle. In larger areas, 3-4 of the small (10 m x 10 m) exclosures may be set up. Exclosures would allow us to measure changes in habitat quality in areas without cattle.
- Radio telemetry would be used to monitor bog turtle responses to various levels of grazing in 2-3 study areas. Turtles would be captured by visually searching and probing within habitat areas and through the use of live traps. The traps would be set in small streams and small open bodies of water within the study areas and would be checked 1-2 times daily. Captured adult turtles would be weighed and measured and fitted with single-staged radio transmitters. All radios would be attached to the right or left plural scute of the turtle. Radios would be attached to the carapace of the turtle using 5-minute epoxy putty. Turtles would be weighed a second time after attachment of the transmitter to insure that the transmitter weight does not exceed the recommended 7% of body weight guidelines (Carter, 1997). Radioed turtles would be monitored 2-3 times per week, throughout the study period.

The following are mitigation measures agreed to by the National Park Service, the Virginia Department of Game and Inland Fisheries, and Virginia Tech during the NEPA process:

- Intense grazing for the purposes of this study would be kept at the low end of the “heavy grazing” scale and would only be undertaken for short periods of time in order to avoid any irreparable impacts to the wetlands.
- Trapping and attaching radio transmitters to study animals will be carried out according to well-established procedures and guidelines as outlined by the Carter (1997), the Virginia Department of Game and Inland Fisheries, and Virginia Tech.
- Fences and cattle exclosures will be constructed by hand. No motorized or heavy equipment will be permitted within wetlands, and bog turtle habitat at any time. The fences will be removed at the end of the study.
- The Virginia Department of Game and Inland Fisheries, Virginia Tech, and the National Park Service will closely monitor construction of exclosures and grazing and cattle impact within the study areas. Dr. Joseph Mitchell, University of Richmond, will be a consulting Biologist for this study.

### **Summary of Environmental Compliance**

The National Park Service, as a federal land-holding agency, is required to locate, inventory, and nominate properties to the National Register, and to exercise caution to protect such properties under Section 106 of the ***National Historic Preservation Act*** (16 U.S.C. 470). The Park Cultural Resource Specialist reviewed this project, and determined that no historic or pre-historic resources would be impacted. Therefore, the project as proposed is in compliance with this law and regulation.

In accordance with Section 7 of the ***Endangered Species Act of 1973***, as amended, (16 U.S.C. 1531 *et seq.*), the U.S. Fish and Wildlife Service was consulted for potential impacts to federally listed threatened and endangered species and their critical habitat. Since the bog turtle is listed as threatened due to similarity of species, no formal Section 7 consultation is required with U.S. Fish and Wildlife Service (Andy Moser, Annapolis Field Office; William Hester, Gloucester Field Office--USFWS, pers. comm.). Preliminary discussions with Carole Copeyon, Endangered Species Biologist (USFWS) involved in bog turtle recovery, suggest that NPS preferred alternatives should not have an adverse impact on bog turtle populations. The proposal does recommend radio-telemetry of 10-12 turtles, but according to USFWS, does not constitute “take” by their definitions. Consequently, a permit will not be required.

Data provided by the Virginia Department of Natural Heritage and the North Carolina Division of Natural Heritage, indicated the presence of 16 species of rare or threatened plants, which typically occur in bog turtle areas in the Plateau and Highlands Districts of the Blue Ridge Parkway (see Appendix A). Since the proposal would not jeopardize the continued existence of any federally listed plant species, no Biological Assessment or further Section 7 consultation with the U.S. Fish and Wildlife Service is required.

In accordance with the ***U.S. Fish and Wildlife Coordination Act*** (48 Stat. 401, as amended; 16 U.S.C. 661 *et seq.*), the U.S. Fish and Wildlife Service, the Virginia Department of Game and Inland Fisheries, and the North Carolina Wildlife Resources Commission have been consulted regarding wildlife resources. The Parkway has obtained a permit (VMRC# 00-0187) from the Virginia Department of Game and Inland Fisheries for radio-tagging the bog turtles. A permit is not required from the U.S. Fish and Wildlife Service, nor the North Carolina Wildlife Resources Commission; thus, the National Park Service is in compliance with this regulation.

In accordance with the **Clean Water Act** of 1977 (33 U.S.C. 1251 *et seq.*), applicable state and federal permits (Section 401 Certification and Section 404 Permit) will not be required for this project since no streams will be adversely affected by this project. Thus, the National Park Service will be in compliance with both federal and state requirements.

According to soil maps prepared by the Soil Conservation Service and updated by the Natural Resource Conservation Service, there are no prime farmland soils known to occur within or adjacent to the wetland areas, therefore, it has been determined that this proposal would not result in any irreversible or irretrievable damage to farmlands. This is in keeping with the intent of the ***Farmland Protection Policy Act of 1984***.

**Executive Order 11988 (*Floodplain Management*)** requires federal agencies, to the extent possible, to avoid adverse impacts associated with development in floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. The proposal would not affect 100-year floodplains within the Blue Ridge Parkway, and is thus, in compliance with this regulation.

**Executive Order 11990 (*Protection of Wetlands*)** requires federal agencies, to the extent possible, to avoid long- and short-term adverse impacts associated with construction in wetlands, and to avoid direct and indirect support of development in wetlands wherever there is a practicable alternative. The proposed study would require fences and cattle exclosures to be built to exclude cattle from a portion of

the wetlands. No motorized or heavy equipment will be permitted within wetlands or the bog turtle habitats at any time, and the fences will be removed at the end of the study. Thus, the Blue Ridge Parkway is in compliance with this regulation.

Section 5. (d) of the ***National Wild and Scenic Rivers Act*** (16 U.S.C. 1271-1287), requires each federal agency, as part of its normal planning and environmental review processes, to take care to avoid or mitigate adverse effects on rivers identified in the Nationwide Rivers Inventory compiled by NPS, potential state Scenic Rivers or existing or potential State Scenic Byways. This proposal does not impact any planned or existing recreational facilities or any streams on the inventory list. Thus, the National Park Service is in compliance with this regulation.

Because the project provides no additional facilities, programs, or activities for Parkway users, no consideration for access to persons with disabilities is needed. The proposal is, thus, in compliance with the intent of the ***Architectural Barriers Act of 1968***, as amended, the ***Rehabilitation Act of 1973***, as amended (Section 504), and the ***Uniform Federal Accessibility Standards (UFAS)***, and the ***Americans with Disabilities Act (ADA of 1990)***.

**Executive Order 12898 (*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*)** requires federal agencies to integrate environmental justice considerations into the NEPA process. There would be no disproportionately high and adverse impacts upon minority and low-income populations resulting from the proposal.

**Executive Order 13007 (*Native Americans' Concerns*)** requires federal agencies to avoid adversely affecting the physical integrity of Indian sacred sites. It was determined that the proposal would not affect any sacred sites, therefore, the National Park Service is in compliance with this regulation.

The ***National Park Service Organic Act*** (16 U.S. Code 1), established the National Park Service in order to “promote and regulate the use of parks...” The Organic Act defined the purpose of the national parks as “to conserve the scenery and natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” The Organic Act still provides overall guidance for the management of the Blue Ridge Parkway.

Consequently, the environmentally preferable alternative conserves values embodied in the Organic Act to:

- Accomplish the mission of the National Park Service.
- Achieve goals of the *Parkway Master Plan* and *GPRA*.
- Achieve the purposes and criteria of the Parkway's long-range goal to develop a conservation and management plan in cooperation with the VDGIF and the NCWRC and others for the bog turtle and its wetland habitats along the Parkway.
- Prevent impairment of park resources in a manner that meets legal and policy requirements.

## CONCLUSION

The National Park Service has made a Finding of No Significant Impact since implementation of the proposal does not constitute a major Federal action significantly affecting the quality of the human environment. Therefore, in accordance with the National Environmental Policy Act of 1969 and the regulations of the Council on Environmental Quality (40 CRF 1508.9), an Environmental Impact Statement will not be prepared for the project. Implementation may take place immediately after the date of this decision.

**Approved:**            **/signed/ Patricia A. Hooks (Acting) 3/13/01**  
**Jerry Belson, Regional Director**  
**NPS, Southeast Region**